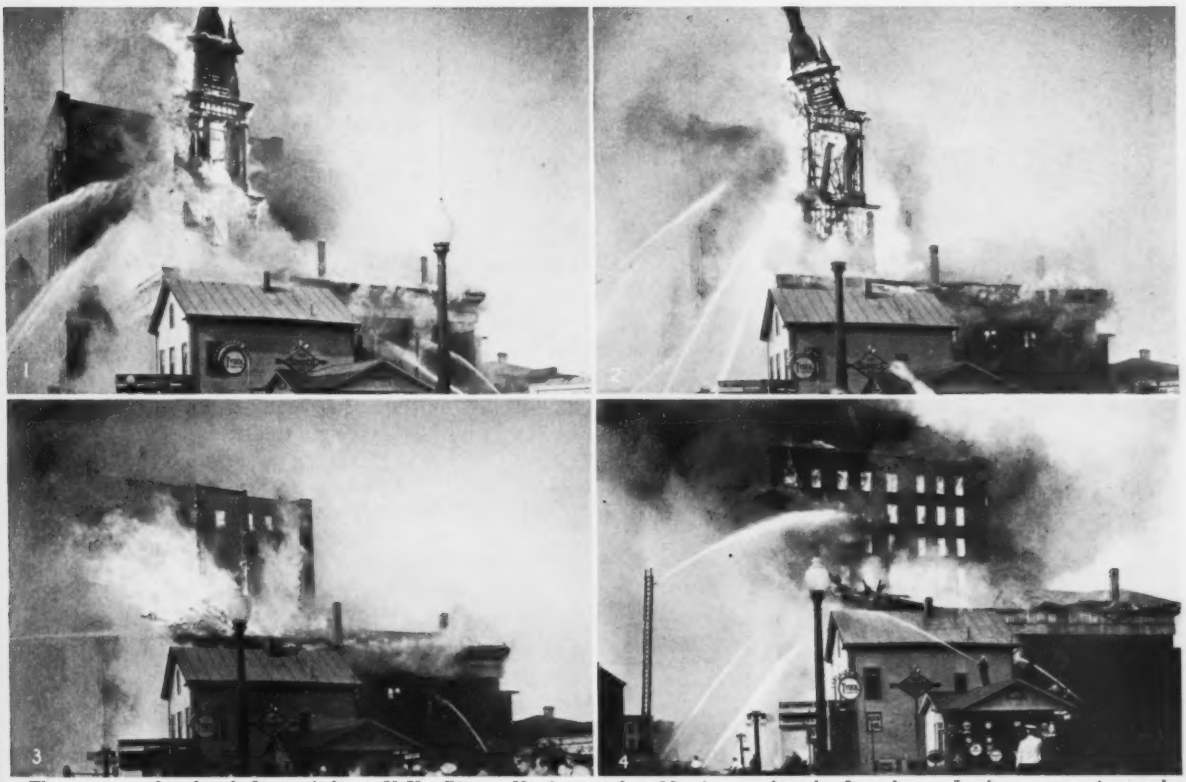
Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Volume 2, Number 9 **BOSTON, MASSACHUSETTS** **September, 1935**



The progress of a church fire at Auburn, N. Y. Picture No. 1 was taken 12 minutes after the first alarm. In three more minutes the steeple collapsed as shown in Picture No. 2. Pictures Nos. 3 and 4 show further progress of the fire as the building next to it caught fire. The total loss was about $250,000.

Why Churches Burn

More Than Five Church Fires a Day in U. S. and Canada — Details of Construction Make Church Fires Hard to Fight

CHURCH fires occur in the United States at the rate of five a day, and the annual fire loss amounts to about four million dollars, according to figures compiled by the National Board of Fire Underwriters. Last year in Canada, 167 churches were destroyed by fire. Typical church fires, like the following, will illustrate the problem.

During an electrical storm in Troy, Illinois, the church steeple was struck by lightning. People who discovered the fire tried to call their volunteer fire department, but the telephone system was put out of order by the lightning. The department was then called by ringing the church bell, but the church burned down because there was not an adequate supply of water.

Steeples or tall spires are attractive targets for lightning bolts. However, if properly rodded and well main-

International

Shortly after fire started in this famous church in the small village of Ste. Anne, P. Q., it spread to the roof of the cathedral on one side, and the roof of the monastery on the other. Villagers did what they could to fight the fire, but were almost powerless because of the lack of water.

tained there is but little chance that a church will catch fire from electrical discharges.

Some churches burn so rapidly that the best of volunteer fire departments having plenty of water available cannot cope with the situation. Such was the case in Pe Ell, Washington, when a church and the adjoining parsonage caught fire from exposure and burned to the ground.

If more churches were of fire-resistive construction, the fire hazard would, of course, be somewhat lessened. A truly fire-resistive church is very much the exception to the rule. Many churches go so far as to have brick or masonry walls, and are sometimes of fire-resistive construction in roof framing, and other details. The advantages of these features are often lost because of false interior walls and decorative features. The false-work is usually of wood or other combustible construction which provides a large amount of material to burn in the structure itself. Worst of all, however, fire can get behind such dummy walls and spread in the concealed spaces where the fire cannot be readily gotten at in the course of fire fighting operations.

These defects in construction and arrangement largely explain why church fires are hard to fight.

How fire spreads from the lower parts of an ordinary church to the roof and steeple is recorded in a report of a fire in a Minnesota town last year. The church was 100 ft. long and 50 ft. wide, with a straight gable roof. The outside walls were of brick and the inside walls were of lath and plaster on 2 in. by 12 in. studding. This left an air space of about 12 in. between the walls.

During the church service someone noticed smoke issuing from the steeple. When firemen arrived they found flames were traveling up the air space between the walls of the chancel at the back of the church. One line of hose was brought through the front door and another through the rear door. The inside walls were pulled down and water put on the seat of the fire. Although there was but little smoke inside the church, fire and smoke had already spread from the chancel up to the air spaces between the ceiling and roof, and the draft caused by the wind blowing over the belfry arch of the steeple sucked out the heat, smoke, and flames. The construction of the church was similar to that of a stove, with the fire box back of the chancel, the auditorium as the oven, and the steeple the smoke stack.

A defective electric switch back of the chancel was thought to have caused the fire. A 40 mile per hour wind carried sparks as far as a mile away, setting fire to 26 wooden shingle roofs.

If the air spaces between the walls had been fire-stopped, there is no doubt but that the fire would have been confined to its place of origin and extinguished by the first firemen arriving. It is, therefore, important

Fire in this typical small town church was fought at the rear of the building where it started and appeared to be under control. Suddenly fire broke out in the tower after spreading through the open loft of the building.

in fighting church fires to know the construction features of churches so as to plan just how the fires may be attacked to advantage.

Any volunteer fire department is likely to be faced with the problem of fighting a church fire similar to those just described. Many such churches are old and of frame construction with wooden floors and roofs, and an attic between the ceiling and roof. A church of this type may become a roaring furnace before the fire is ever discovered.

The first four common fire causes listed below are responsible for 76 percent of the total number of church fires, according to the records on file in the N.F.P.A. Department of Fire Record.

Cause	*Percent of Fires*
Heating plant	27
Defective wiring	21
Defective chimney	17
Lightning	11
Exposure	5
Sparks on wooden shingle roof	4
Miscellaneous known causes	15
	100

There is an added hazard in the case of the church which is used only once a week. The heating plants of such churches are turned on full blast on Saturday evening or Sunday morning. This often results in overheating of combustible surroundings and fire occurs. In any case, heating plants should be installed so that furnaces and boilers are not near combustible partitions and so that smoke-pipes are not close to woodwork.

The heater room should preferably be entirely separate from the church, or shut off from it by standard fire walls and doors. Also much responsibility for safe operation of the furnace rests upon the janitor or attendant.

At least a part of every church basement or attic is used as a catch-all for combustible material and rubbish, and with few exceptions the housekeeping is not good. Coal may be carelessly stored. Ashes may be put in combustible containers or piled against wooden partitions. Chimneys may be defective and dirty.

International

Many churches such as the one above appear from the outside to be of substantial construction and almost fire-safe. The lower picture shows what fire can do. Partly burned wooden sheathing and concealed spaces which permitted the rapid spread of fire from basement to roof can be seen on the rear wall.

Electrical circuits may be overloaded and improperly fused, and wiring may not be installed in accordance with the National Electrical Code. Fires also start in the pipe organ wiring.

If a church fire happens to get away, a lot of local citizens would consider it a serious black mark against the fire department. Of course, they wouldn't know anything about the inherent defects in construction and arrangement of church buildings or other difficulties which might present themselves at the fire. Anything members of the department themselves might say would sound like alibi stuff. An outline of the defects and hazards, presented to the church officials in an inspection report before the fire, can usually secure some improvements. Then, if there is a fire, it is the church officials who have to provide the alibis.

Fire Prevention Week, Oct. 6-12, 1935

Now is the Time to Begin Planning Your Annual Campaign
Opportunities and Material for Successful Observance

FIRE Prevention Week is the period set aside each year in America to remind people of the dangers of fire and to teach them how most fires can be prevented. Although almost all fire departments do fire prevention work every week during the year, they can best arouse their citizens to fire-consciousness and do most effective work during Fire Prevention Week by carrying out a local educational campaign when national publicity is centered on it.

The President of the United States, the Governor-General of Canada, governors of states, officials of provinces, state and provincial fire marshals, city and town officers and fire chiefs—all make annual appeals for the co-operation of all citizens to make every effort to prevent loss of life and property by fire. The National Fire Protection Association Committee on Fire Prevention and Clean-up Campaign, under the chairmanship of T. Alfred Fleming, directs this annual campaign.

Volunteer fire departments or companies carry on a variety of activities to secure an adequate observance. Fire prevention exhibitions and drills may be staged. Having open house at the fire station is one way to let the people know what the department does throughout the year.

Defective chimneys and wooden shingle roofs are two principal causes of fires, and campaigns may be put on to find these hazards and call them to the attention of the owners.

There are hundreds of ways to arouse interest through general publicity such as newspaper articles, posters, window displays, and essay and poster contests in the schools. The co-operation of business men and civic organizations should be enlisted. Short fire prevention talks may be made at club meetings and gatherings during the week.

Last year several volunteer departments constructed model buildings showing the fire hazards in each and used them in connection with displays and talks. Some departments printed fire prevention bulletins or printed messages on blotters and distributed them. This year the N.F.P.A. is offering for sale at cost an attractive Fire-Prevention Week calendar-blotter upon which may be imprinted the name of the local fire department.

Dwelling house hazards should be stressed. During the last ten years the number of dwelling fires have increased about 43 percent in the United States, and nearly doubled in Canada. Reproduced on pages 6 and 7 of this issue of VOLUNTEER FIREMEN is a very effective bulletin showing dwelling hazards which was distributed in Oregon. Last year nearly 7000 people, half of whom were children, were killed in dwelling house fires.

A novel fire prevention feature was introduced in Lakewood, Ohio, last year. The importance of each home conducting a fire drill as a means of creating fire consciousness among adults and reducing loss of life in dwelling fires was emphasized.

A large assortment of publications and posters for use in local campaigns are available from the National Fire Protection Association. These supplies for local campaigns are furnished to fire departments and others at cost. Samples of new material were mailed to members last month.

See page 9 of this issue of VOLUNTEER FIREMEN for a list of available material. Prepare now for another battle against fire by outlining your program of activities and ordering your material.

The 1935 Fire Prevention Week Poster. It is printed in two colors and is 12 in. by 16 in. in size. The space at the bottom is for local imprinting. Available from the N.F.P.A. See page 9 for details of ordering.

Problem Questions
FOR SEPTEMBER

Suggested for discussion at company and department meetings this month

21

What is generally meant by the fire department term "overhauling"?

22

Name the principal fire hazards in school buildings.

Watch for the answers in the next issue of VOLUNTEER FIREMEN

Discussion Subjects

THE topics on which questions and answers are given below have been the subjects of discussion at company and department meetings during the past month.

19

Q. *What is the best procedure in attacking a cellar or basement fire in a dwelling?*

A. *Stretch a 2½-in. hose line, then determine whether or not the fire is traveling up between the walls, partitions, or other vertical paths.* While many cellar fires can be handled with chemical or booster lines, others require larger streams. Less damage is likely to result from the use of water in a cellar or basement of a building than on upper floors. A precautionary small line should be laid to the first floor, and if fire is found there, additional small lines should be run to the upper floors.

When the charged lines are ready, the cellar windows should be opened if possible. No water should be thrown until the location of the fire is determined. If there is an outside cellar door, open it and be ready to knock down the fire. In most cases the inside cellar door will be found open. This should be closed at once to prevent the fire from traveling up through the house—at least for a time.

When going down a cellar stairway that is heavily charged with smoke, it is best to back down. Then if a stair tread is missing or burned away, an injury may be prevented by falling with the face to the stair.

If there is a furnace register on the first floor, perhaps it can be pulled out and the pipe knocked down with a pike pole or plaster hook to let the hot gases out. A charged line should be ready to prevent fire from extending through the building. It may be desirable to cut a hole in the flooring of the first floor and use a cellar nozzle or pipe.

Smoke helmets or other suitable masks may be of use. If there are gas pipes and electric wires in the cellar, additional precautions must be taken by shutting off these services if this can be done.

20

Q. *What is the first thing to do in case of severe bleeding?*

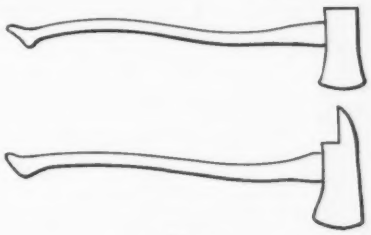
A. *Stop the flow of blood.* There are two kinds of bleeding, veinous and arterial. Veinous bleeding is a steady flow of blood from veins. Arterial bleeding is more dangerous, as the blood comes from an artery in spurts.

In all serious bleeding, think first of applying pressure. The six main pressure points for controlling the flow of blood are:

1. In the neck to the side of the windpipe against the backbone.
2. In front of the ear against the skull.
3. About one inch forward from the angle of the jaw.
4. Behind the inner end of the collar bone against the first rib.
5. On the inside of the upper arm halfway between the shoulder and elbow.
6. In the groin as it passes over the pelvis bone.

When using a tourniquet for pressure, the places to control bleeding are: around the upper arm about a hand's breadth below the armpit, or around the thigh about the same distance below the groin. A tourniquet should be loosened every 15 or 20 minutes to let new blood flow into the artery. It is a dangerous device and should not be used if the bleeding can be controlled otherwise.

Fire Tools



Axes

The fireman's axe is one of the most important tools used by fire companies. The two common types are the flat head axe and the pick axe.

The flat head axe may be used as a sledge or maul and makes a slightly better cutting tool than the pick axe as it is better balanced. The pick axe, however, is easier to carry in a belt and may be used to pull up flooring and roof boards and similar work. The pick axe is also useful for pulling lath and plaster in places where pike poles cannot be used.

The axe is frequently used for opening up to ventilate. After the tin or other covering has been removed from a roof, the axe is used for cutting the roof boards. It is used for cutting flooring to make holes for cellar pipes and distributors, and to drain water from floors. It is used to pry open a window, to open up window frames for inspection after a fire, and for breaking window panes. In the latter operation the pane is broken by standing to one side and knocking the pane inward with the flat side of the axe.

An axe comes in handy for opening doors by inserting the blade in between the jamb and door and prying with the handle. For removing hinge pins, wedging off hinges, removing panels, opening shutters and sliding doors, and similar operations, the axe is a useful tool. Care should be exercised when using an axe so as to avoid striking gas pipes and electric wiring. Every experienced fireman can name a multitude of uses for axes. They deserve good care.

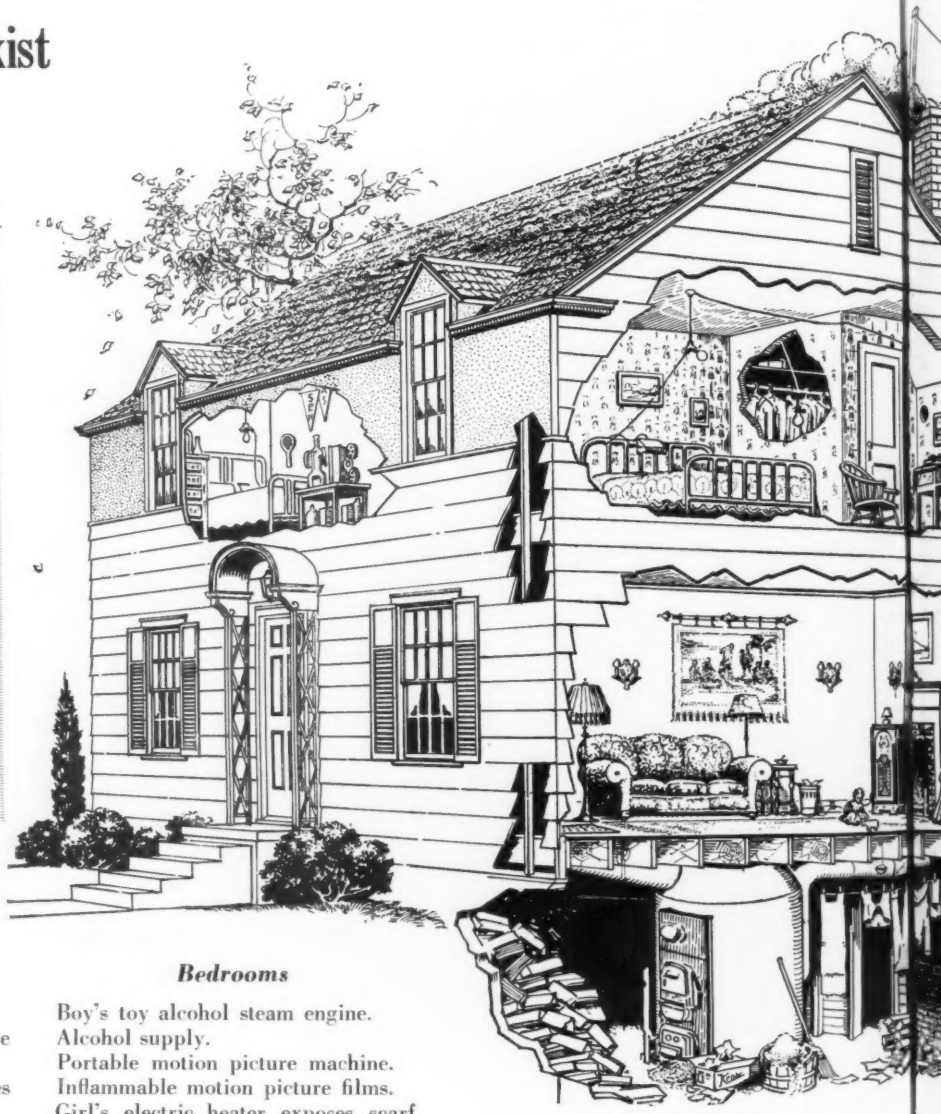
HOME FIRE HAZARDS WHICH CAUSE THE GREATEST NUMBER FIRE

Do Any of These Exist in Your Home?

Oregon Fire Marshal Sponsors Statewide Fire Prevention Campaign

The material on this and the opposite page is from a folder prepared by the State Fire Marshal's Department of Oregon, and is reproduced through the courtesy of Deputy State Fire Marshal E. A. Taylor.

The illustration and accompanying list prepared by the Fire Marshal's Department covers the subject of home fire hazards and fire prevention in the home in an effective and attractive manner. In leaflet form, this material is being used in a fire prevention campaign designed to reach every home in the state.



Hazards Outside of House

Moss and leaves on roof—sparks.
Curled shingles—sparks.
Chimneys too short—sparks.
Chimneys need cleaning—soot.
Radio aerial causes strain.
Combustible aerial supports above top of chimneys.
Aerial will fall across electric wires and has no lightning arrester.
Electric wires over roof.
Service wires bracketed down side of house should be in conduit.
Entrance switch unprotected should be in metal cabinet.
Entrance switch connected backwards; switch and fuses charged when the switch is open.
Electric load of house is evidence of over fusing or bridged fuses.
Dry grass and brush in backyard.

Bedrooms

Boy's toy alcohol steam engine.
Alcohol supply.
Portable motion picture machine.
Inflammable motion picture films.
Girl's electric heater exposes scarf on dressing table.
Connected electric curling iron on dressing table with pyroxylin brush, etc.
Electric light globe against clothes in closet.
Improperly connected drop-cord over nails.
Drop-cord wound around metal bed.
Open or improperly stopped flue hole.

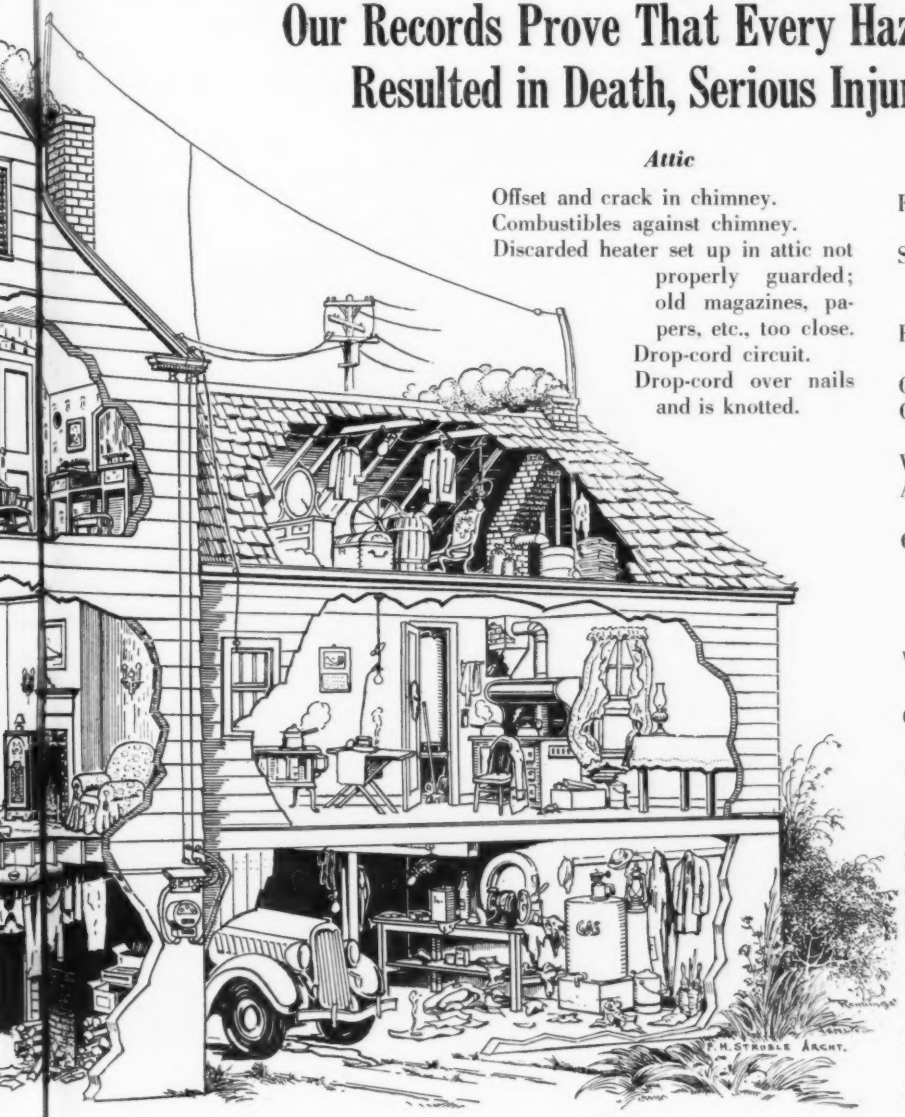
Living Room

Unguarded fireplace—no screen.
Waste paper basket next to smoking stand.
Dust, lint or sweepings in air register.
Doll and pyroxylin toys are evidence of small child playing in front of unguarded fireplace.
Over-loaded convenience outlet.

R FIRES

CAN EASILY BE ELIMINATED

Our Records Prove That Every Hazard Illustrated Has Resulted in Death, Serious Injury, or Property Loss



Opening showing wall construction shows lack of proper fire stops. A fire in the basement will quickly extend to the attic.

Basement—Garage and Shop

Automobile, backfire, gasoline and defective wiring and oil leakage.
Unguarded light globe on extension cord.
Knot in drop-cord.
Discarded burning cigarette.
Gasoline and kerosene storage.
Emery wheel, sparks near gasoline.
Matches on bench in reach of children.
Oil-soaked rags, old paint brushes, spontaneous ignition hazard—turpentine and linseed oil.
Rubbish and litter.

Attic

Offset and crack in chimney.
Combustibles against chimney.
Discarded heater set up in attic not properly guarded; old magazines, papers, etc., too close.
Drop-cord circuit.
Drop-cord over nails and is knotted.

Basement—Furnace Room

Furnace and smoke pipe too close to open and unprotected floor joists.
Smoke pipe does not have locked or riveted joints and is not properly supported.
Furnace and smoke pipe need cleaning.
Cobwebs between floor joists.
Clothes line too close to hot smoke pipe.
Wood not piled—rubbish and litter.
Ashes in combustible and wood containers.
Clean out for fireplace left open.

Kitchen

Wood range without floor guard; too close to walls.
Chimney on bracket with flue hole too close to ceiling.
Smoke pipe not guarded or supported.
Drying dish cloths over stove.
Matches in reach of children.
Clothes drying too near stove.
Curtains may blow over stove or tip lamp over.
Woodbox too close to stove—sparks may fall into it.
Exposed lath where plaster has been knocked off near woodbox.
Kerosene to start fires.
Dangerous design kerosene lamp—too high, small base, tip over easily.
Lamp on tablecloth which may be pulled by small child.
Knot in drop-cord.
Electric iron left on.
Kerosene stove.
Oil mop in cabinet for hot water tank should be in cool place and in its metal container.

Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

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Volume 2 **September, 1935** Number 9

Fire Prevention Week Campaign Material Posters, leaflets, pamphlets, and blotters are now available for use in Fire Prevention Week campaigns. Samples have already been mailed to members. The National Fire Protection Association has no funds for the free distribution of this printed material in large quantities because it is a self-supporting organization dependent on the dues of members.

As we print this material in large quantities, we can offer it to our members and others at much lower cost than it could be prepared by individual fire departments in small quantities. This is one of the many special services of the N.F.P.A. See the list and prices on page 9, and order a good supply for your campaign.

Volunteer Section Two Years Old This issue of VOLUNTEER FIREMEN completes the second year of activity of the Volunteer Firemen's Section of the National Fire Protection Association. The first issue of this magazine came out in October, 1933. The rapid growth of the section to nearly nine thousand members from all parts of the United States and Canada is indeed remarkable.

The magazine, other publications, and services of the N.F.P.A. to its members sell themselves. Only a small percent of the members do not renew when their first year's membership expires.

The five-point program or platform upon which the section was founded and is guided follows:

1. The interchange of experience among volunteer fire departments.
2. The development of a medium for broadcasting new developments and new ideas of benefit to volunteer fire departments.
3. The development of standard practices and methods for fire fighting by volunteer fire departments.
4. The promotion of fire prevention in rural districts.
5. The promotion of the organization of new volunteer fire companies and extension of the service of existing companies where necessary.

New Members During August New applications and renewals for membership in the Volunteer Firemen's Section continue to come in during the hot weather and vacation periods. The fire companies or departments listed below with 249 men have joined the section since the last issue of VOLUNTEER FIREMEN. The total membership is now 8,924.

Woodbridge Volunteer Fire Association, Inc., Woodbridge, Connecticut.

Russell Manufacturing Company, Fire Department, Middletown, Connecticut.

Olivet Fire Department, Olivet, Michigan.

Chatham Fire Department, Chatham, New Jersey.

Haverstraw Fire Department, Haverstraw, New York.

Protection Engine Company No. 1, Port Washington, New York.

Shelby Fire Department, Shelby, North Carolina.

Orange Volunteer Fire Department, Orange, Texas.

Maritime Fire Chiefs' Association, St. John, New Brunswick.

Amherst Fire Brigade, Amherst, Nova Scotia.

New Waterford Fire Department, New Waterford, Nova Scotia.

MEMBERSHIP PLAN

Volunteer Firemen's Section National Fire Protection Association

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man*. Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from the company or department treasury.

Companies With Less Than Twenty Members

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues. In the case of companies or departments with less than twenty men this means that the cost divided among them will be slightly higher per man. Of course, some such companies or departments may prefer to make a single remittance of $10.00 from the company or department treasury. In other cases a few interested citizens, not members of the company or department, may be glad to contribute 50 cents apiece to make up the required minimum of twenty, so that the members may secure the rate of 50 cents per man.

These companies or departments have full privileges of N.F.P.A. membership as above, and each member receives the monthly magazine, VOLUNTEER FIREMEN, at his home.

Campaign Material for Fire Prevention Week

October 6-12 1935

The N.F.P.A. would like to make a general free distribution of this literature, but its limited finances do not permit this and charges must be made to cover the cost of quantity distribution as is indicated below:

Poster. (FPW 1) A striking two-color Fire Prevention Week Poster, 12 x 16 in.—"What Would Fire Mean to You?" *Sample copies free, $1.00 per hundred, $7.50 per thousand.*

The panel at the bottom of this poster may be used for local imprinting if desired. Imprinting may be done by the purchaser or will be done by the N.F.P.A. (subject to delays incident to such extra printing) at the following prices: one thousand or less $2.50; each additional thousand $1.00.

A special edition of the poster, printed on substantial cardboard, will be supplied instead of the paper poster on request, at $3.50 per hundred, $30.00 per thousand.

"CRUSH YOUR CIGARETTE" is another two-color poster (same size and price as above) suitable for use in connection with Fire Prevention Week. *Sample free on request.*

Leaflet. (FPW 2) A striking leaflet, in red and black, 6 x 9 in., telling the story of Fire Prevention Week in condensed form, and giving the essential rules for fire safety. Intended for public distribution in schools, etc. *Sample copies free, 50 cents per hundred, $3.50 per thousand.*

Fire Prevention Week Blotter. "Help Prevent Fire." (FPW 3) A new item this year, printed in two colors on a white blotter of good quality, 3½ x 8½ in. Effective for general distribution as an envelope enclosure. *Price $1.00 per hundred, sample on request.*

There is space at the bottom of the blotter for local imprinting if desired. This may be done by the purchaser, or by the N.F.P.A. at: 500 or less $1.00, each additional hundred 10 cents.

Fire Prevention Week Handbook. (FPW 4) This is the sixth edition of a fifty-page illustrated handbook going into all phases of Fire Prevention Week and Clean-Up Campaigns. *Price 15c. per copy, $10.00 per hundred.*

Facts About Fire. (FPW 5) A 1935 20-page Supplement to the Fire Prevention Week Handbook. This pamphlet contains material valuable for preparation of speeches, newspaper publicity and radio broadcasts. *Price 5c. per copy, $3.50 per hundred.*

Fire Prevention Exhibits. (FPW 6) A 16-page pamphlet reproducing 22 photographs of successful state and county fire exhibits, window displays and other exhibits used to dramatize fire prevention. *Price 10c. per copy, $7.50 per hundred.*

Selected Demonstrations for Use in Fire Safety Education. (FPW 7) An attractive 32-page pamphlet. 63 illustrations, presenting a selection of effective methods used in fire prevention demonstrations. Reprint from January, 1935, QUARTERLY. *Price 25c. per copy, $12.00 per hundred.*

Keep Your Home from Burning. (FPW 8) A two-color folder designed for general distribution to homes. The last page is left blank for special imprinting if desired. *Sample copies free, $1.50 per hundred, $7.50 per thousand. (Imprinting, if desired, at additional cost.)*

All the above prices are F. O. B. Boston. Orders will be shipped express collect unless other shipping instructions are received. Single copies and small orders will be sent parcel post prepaid. Designating numbers in parentheses after each title above are for convenience in ordering by telegram.

All those desiring to secure supplies of posters, handbooks, etc., are urged to order them promptly to secure early delivery. Last minute orders are often subject to annoying transportation delays.

For the above material as well as for general information on fire prevention apply to

NATIONAL FIRE PROTECTION ASSOCIATION
60 Batterymarch St., Boston, Mass., U.S.A.

Shuredry
SALVAGE COVERS
Reduce
WATER DAMAGE & INSURANCE RATES
SHUREDRY is the cover that fire chiefs all over the country have endorsed for superior service.
Made of our special process chemically treated canvas they resist both heat and cold. SHUREDRY covers will not crack or split on your storage shelves — easy to handle — give better service.
Address our plant nearest you for full information and prices.
Fulton Bag & Cotton Mills
Manufacturers Since 1870
ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS BROOKLYN NEW ORLEANS KANSAS CITY, KAN.

Can You Use $10.00?

If You Can, Submit Your Story in Pyrene Letter Contest—Cash Winners This Month

MANY persons have made it a practice to carry a fire extinguisher in their automobile and in their motorboat. This month an unusually large number of fire stories were entered reporting where extinguishers so carried had been successfully used to save life and property, vivid testimony to the value of the practice. Selections of the winning stories following were especially difficult to make because of the many good stories submitted this month.

You are missing a real opportunity for a cash prize if you are not submitting your stories in this contest. Don't forget to give the kind and size of hand fire extinguisher used.

THIS MONTH'S AWARDS

FIRST PRIZE—$10.00

A. C. KNIGHT, *Chief*,
Fire Department, Warrenton, Ore.

Conviction for Arson Secured

"An alarm came in at 4 A.M. An old wooden building on Main Street was on fire. The assistant chief made the run in his own car, and the chief followed with the fire truck.

"Climbing to the roof of the building with a 1-gallon carbon tetrachloride extinguisher, the assistant chief pulled off a shingle and emptied the contents of the extinguisher into the attic, killing the fire.

"An inspection revealed that paper and cotton had been soaked in kerosene and placed around in the attic. The fire was killed so quickly that it left positive evidence that arson had been committed. The owner was arrested, tried for arson, convicted, and sent to the pen for one year.

"Three men were asleep in the building at the time of the fire. The prompt action of the department and the efficiency of the extinguisher saved the lives of the three men, and saved a whole block of property."

SECOND PRIZE—$3.00

W. E. HEMBREE, *Chief*,
Fire Department, Bridgeport, Texas

Stopping a Dangerous Film Fire

"A reel of film caught fire in a projection machine at our local theatre. The heat was so intense the operator had to leave the booth.

"Our assistant chief, being among the theatre crowd, immediate'y went into action with a 2½-gallon soda-acid extinguisher and put out the blaze in a few seconds.

"The projection booth was not of the best fire-resistive type and there was a damage to the machines and building of about $200. The loss might have been more as the theatre was housed in a 2-story building with a hotel. Had they both burned, the loss would have been $10,000, in addition to endangering the lives of the people in the theatre and hotel."

THIRD PRIZE—$2.00

DAN G. UNGER, *Assistant Chief*,
Fire Department, Goessel, Kan.

Value of Extinguisher in Home and Knowing How to Use It

"When I got married eight years ago, I bought a 1-quart carbon tetrachloride fire extinguisher and insisted that my wife learn how to use it. I drilled her on fire fighting and giving an alarm.

"Last spring when everything was dry and water supply was limited, our kerosene stove caught fire. My wife knew just what to do. When I got home in answer to her telephone call, I found that she had the fire out before much damage was done other than to a pan of biscuits in the oven.

"If it had not been for my wife knowing how to use the extinguisher, the fire may have gotten beyond control before we could have reached there with our engines. There was a stiff breeze, and three other frame houses close by."

HONORABLE MENTION

CHESTER WESCOAT, *Chief*,
Volunteer Fire Co., Nesco, N. J.

GORDON W. ROBINSON,
Fire Department, Lexington, Mass.

ELMER G. WHITE,
Fire Department, Lorain, Ohio.

Just send us your story of how an approved fire extinguisher of any make has been used to save life or property and get in line next month for one of the cash prizes being offered in this contest co-operatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN. Until further notice the following cash prizes will be awarded each month: First Prize, $10.00; Second Prize, $3.00; Third Prize, $2.00. The contest will be judged by the engineering staff of the National Fire Protection Association and the editors of VOLUNTEER FIREMEN.

Rules . . .

PYRENE PRIZE LETTER CONTEST

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.

2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.

3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.

4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experiences.

5. Only one letter may be submitted each month.

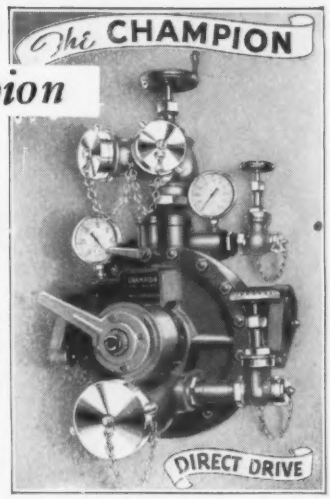
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.

7. Letters received after the 15th of the month will be judged in following month's competition.

8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.

9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch Street, Boston Mass.

It Costs So Little . . . It's Worth So Much To Protect Your Town With A Champion



When the safety of loved ones is at stake, no price is too dear. Fortunately the finest Fire Apparatus in the World — the Champion — is priced so moderately that every Chief can command at least one.

When It Comes To Choosing A Fire Pump These Impressive Facts Should Guide Your Choice

Remember—back in your school days—what a chip on the shoulder meant? It was the challenge of a boy who was certain he was right.

And so we place a chip on the new Champion Fire Pump to express what we sincerely believe—that the new Champion has obsoleted all previous standards in the Fire Pump field.

All the old ideas about fire pumps—and even some new theories—have been swept aside.

Engineered to a design so simplified, so clean cut that all unnecessary parts are eliminated.

You don't have to be an engineer to figure out why Fire Chiefs pick this famous new Champion. Just compare what the Champion has to offer.

DIRECT DRIVE. Identical with propeller shaft drive in any automotive chassis, i.e. ☞two Universal joints with Aux liary Free Shaft coupled between them. Cannot impose a radial load on motor bearings.☞The only drive connection for FLOATING POWER MOTORS.

NO GEARS. Only Champions do not have to be geared-up to meet Underwriters' tests. All the complications of gearing, an entire assembly of gears, shafts, keys, bolts, screws, bearings, gear case, grease, etc., ARE DONE AWAY WITH. You are freed from the loss of power, the noise, the grease, the handicap of gearing.

VACUUM PRIMER. Automatically shuts itself off when pump is primed. Cannot admit water to flood and kill engine. Yet it has NO FLOATS.☞The only primer with this exclusive feature.

FRICTION CLUTCH. No treacherous jaws but a velvet smooth Multiple Disc Clutch. Engages without any possibility of wrecking the motor. Proven construction never before used .n a front pump. No Fire Chief would tolerate any other clutch if he knew the advantages of a 120 H.P. CHAMPION MULTIPLE DISC CLUTCH.

BALANCED IMPELLER. In Champion design the impeller thrust is BALANCED—an exclusive feature not found in any other centrifugal pump. No danger of a cracked ball bearing ;☞the very pressure of the water within the pump is diverted into slots so that 75% of the dreaded end thrust is eliminated.

CHAMPION PUMPS SOLD SEPARATELY

☞ **Any pump easily attached to any OLD or NEW chassis.**

We can supply power drive attachments for mounting the Champion on any Fire apparatus or chassis. If you have an old model pumper you can replace the worn out Rotary pump that has seen better days and only add 175 lbs., the weight of a Champion. When ordering specify make, model, motor, and serial number of chassis.☞Or if numbers are ground off so state and we'll send you simplified questionnaire, reply to which gives us sufficient information to design power drive.☞Champion Fire Pumps have passed ALL test requirements of the National Board of Fire Underwriters. Recognized and accepted by Actuarial Inspection Bureaus of ALL States.

Price includes Front Mounting Brackets. 300-lb. Pressure Gauge, Automatic Safety Primer, Shut-Off Valve, Brass Caps, with plugged inlet and outlet for booster tank connections, auxiliary motor cooling.

No. F—300-Gallon Capacity.☞Net price to Fire Departments, complete with all the above equipment, f.o.b. Chicago **$269**

No. F—400-Gallon Capacity.☞Net price to Fire Departments, complete with all the above equipment, f.o.b. Chicago **$315**

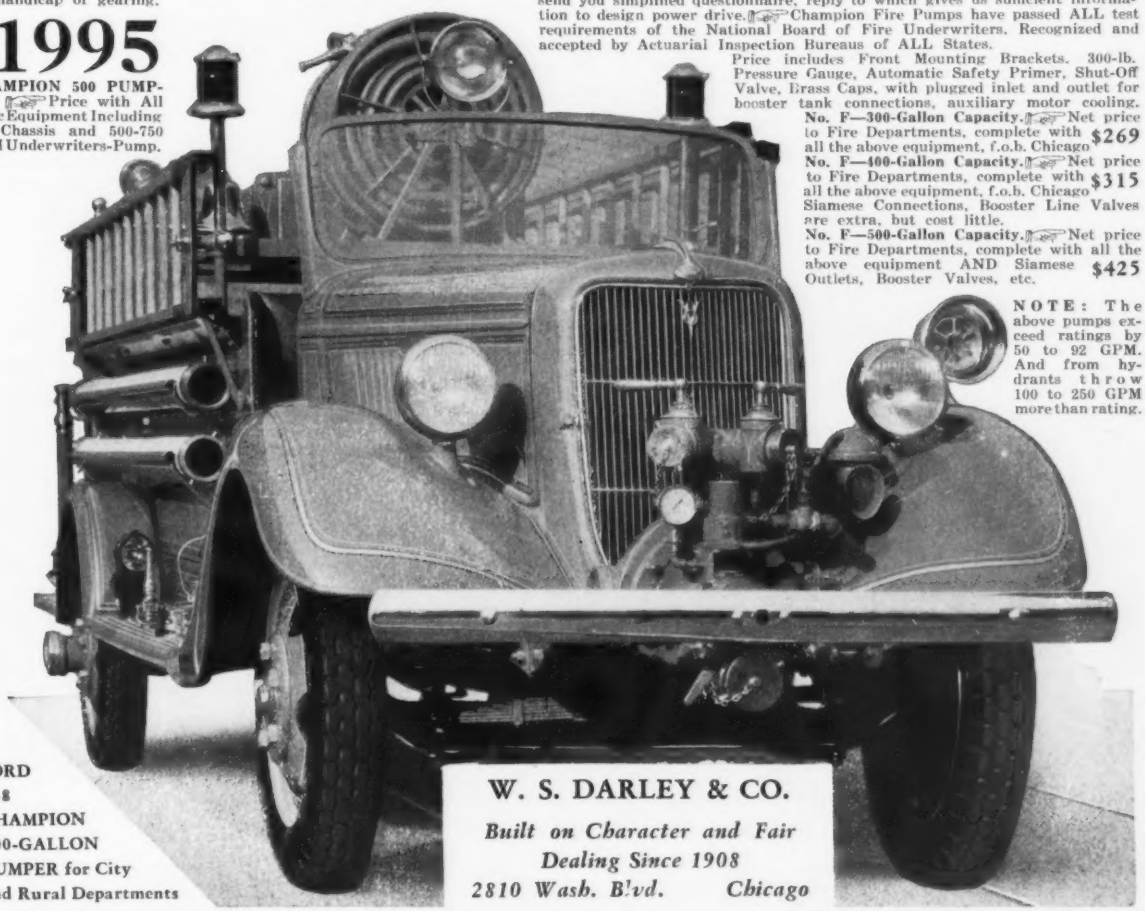
Siamese Connections, Booster Line Valves are extra, but cost little.

No. F—500-Gallon Capacity.☞Net price to Fire Departments, complete with all the above equipment AND Siamese Outlets, Booster Valves, etc. **$425**

NOTE: The above pumps exceed ratings by 50 to 92 GPM. And from hydrants throw 100 to 250 GPM more than rating.

$1995

CHAMPION 500 PUMPER. ☞Price with All Basic Equipment Including V8 Chassis and 500-750 GPM Underwriters-Pump.



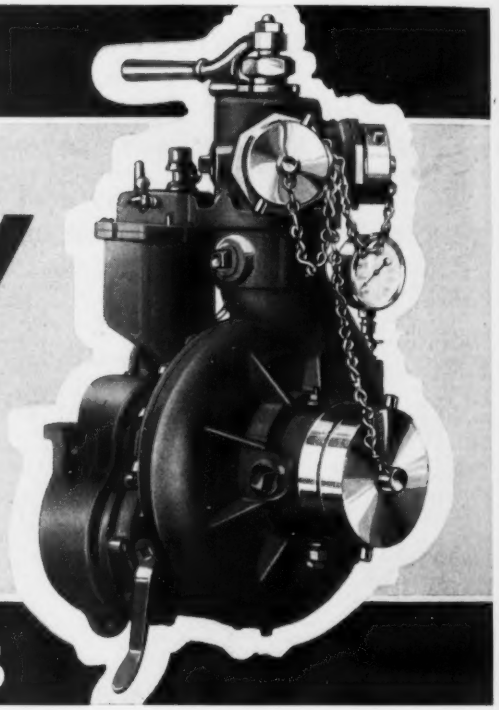
FORD
V-8
CHAMPION
500-GALLON
PUMPER for City
and Rural Departments

W. S. DARLEY & CO.

Built on Character and Fair Dealing Since 1908

2810 Wash. Blvd. Chicago

BARTON



Reliability *Plus* Economy

Fire Pumps

A Barton Centrifugal Pump delivers water from any source; clean water from hydrant or booster tank; dirty water from a river, pond, cistern, etc.

A Barton Pump can be mounted on practically any truck—possibly on one you now have in service, or on new apparatus you may purchase.

Ten years have passed since the first Barton Fire Pumps went into service—and those first pumps are still making good.

Above everything else, A BARTON PUMP IS RELIABLE. You can be sure of that. We build to precision standards. We use the finest materials money can buy.

"Then why do Barton Pumps cost so much less than other types?"—a fair question, asked frequently.

The answer is found in our unique and simplified design. Gone are frills and gadgets—gone is unnecessary weight—no need for a special truck transmission and other expensive chassis alterations.

Our pump is strong and enduring, yet simple and inexpensive. Our patented front mounting is trouble-free, and requires not a single chassis change.

With so many Barton Pumps now used in cities, towns and rural sections, likely there is a chief near you who has one or more in service. Ask him! What he tells you concerning Barton quality and performance will be far more impressive than anything we might say.

U-Type Bartons, as shown above, are UNDERWRITERS TESTED in all sizes, and we have other types at still lower prices. Write for Bulletin 75.

Personal Contact [Barton Fire Pumps are sold by factory representatives. This gives you the benefit of personal contact. Our man in your vicinity can help you choose the proper pump for your needs—then help you get started right when your equipment arrives.

AMERICAN STEAM PUMP COMPANY

BATTLE CREEK, MICHIGAN *PUMPS AND PUMPS ONLY SINCE 1873*

PRINTED IN U.S.A.